

REMARKS

I. The Claims

In this Amendment, claims 1, 16, 21-22, and 31 have been amended, claims 2, 17, 23, and 42-53 have been canceled, and claims 54-61 have been added. Therefore, claims 1, 3-5, 9-16, 18-22, 24-26, 30-31, and 54-61 are now pending.

New claims 54, 58 and 60 recite that the second component of the coating composition comprises a solvent. Support for the subject matter of this claim may be found, for example, at page 5 of the application and in the Examples.

New claim 55 recites that the phenolic resin, the alkoxysilane and the acid comprise no more than about 10 weight percent based on the total weight of the coating composition. Support for the subject matter of this claim may be found in the Examples, such as Examples 4-10.

New claim 56 recites that the alkoxysilane is selected from the group consisting of acryloxyalkoxysilanes, vinyl alkoxysilanes, ethylenically unsaturated acyloxysilanes, mercapto functional silanes, and amino functional silanes. Support for the subject matter of this claim may be found, for example, at page 3 of the application.

New claims 57, 59, and 61 recites that the amounts of phenolic resin, acid, and solvent in the first component and the amounts of the alkoxysilane and solvent in the second component of the coating composition are selected to result in an applied coating film with a dry film thickness of no more than about 0.1 mils. Support for the subject matter of these claims may be found at page 6 of the application and in the Examples.

II. The Claim Rejections

A. 35 U.S.C. 112, ¶ 2

In the Office Action, the Examiner rejects claims 2, 17, 21, 23, 43, 46, 49 and 53 under 35 U.S.C. 112, ¶ 2, as being indefinite. Applicant respectfully requests that the foregoing rejection be withdrawn for the following reasons.

As to claims 2, 17, 21 and 23, the Examiner asserts that the recited molecular weight is indefinite in not specifying a particular molecular weight, such as a number average molecular weight or weight average molecular weight. See Office Action at 2. Although applicant disagrees with the Examiner's position for the reasons set forth on pages 8-9 of the Amendment dated October 3, 2003, and does not acquiesce to this rejection, Applicant has nevertheless herein canceled claims 2, 17 and 23. Such cancellation is without prejudice or

disclaimer and Applicant expressly reserves the right to present the subject matter of these claims in a continuation application. For the same reasons, Applicant has amended claim 21 to remove the reference to molecular weight.

As to claims 43, 46, 49 and 53, the Examiner asserts that the recitation of various substrates is improper and confusing since the substrate of claim 1, for example, is an intended use and describes a desired property and not a part of the claimed invention. See Office Action at 3. Claims 43, 46, 49 and 53 have been canceled without prejudice or disclaimer. Applicant expressly reserves the right to present the subject matter of these claims in a continuation application.

For the foregoing reasons, Applicants respectfully request that the rejections under 35 U.S.C. § 112, ¶ 2 be withdrawn.

2. 35 U.S.C. 102 In View of Gerber

In the Office Action, the Examiner rejects claims 1-5, 9-26, 30, 42-43, 45-46, 48-49, and 51-52 under 35 U.S.C. §102(b) as anticipated by Gerber (US 6,133,403). Applicants submit the following response.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. See MPEP at § 2131; *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Applicant submits that Gerber does not anticipate any of the pending claims as amended herein and respectfully requests that the foregoing rejection be withdrawn.

First, independent claims 1, 16, and 21 have been amended herein to specify inventions directed to a coating composition comprising a mixture of (i) a first component comprising a phenolic resin, an acid, and a solvent, and (ii) a second component comprising an alkoxysilane, wherein the first component and the second component are mixed immediately prior to application of the composition to a substrate. Support for these amendments may be found at, for example, page 5 of the application and the Examples, such as Examples 4-10.

The Examiner contends that Gerber discloses a "coating composition" as recited in the pending claims. See Office Action at 3. Although Applicant does not necessarily agree

with this assertion, the Examiner's position is now moot because Gerber nevertheless fails to anticipate the subject matter of claims 1, 16, and 21 as amended. In particular, Gerber does not disclose a coating composition comprising a mixture of (i) a first component comprising a phenolic resin, an acid, and a solvent, and (ii) a second component comprising an alkoxysilane, wherein the first component and the second component are mixed immediately prior to application of the composition to a substrate. In the present invention, the alkoxysilane is segregated as a separate component in order to prevent self-condensation thereof prior to such application.

Gerber, on the other hand, discloses compositions comprising an acid hardenable phenolic resin, a benzylic alcohol or benzylic alcohol derivative additive, and a hardening agent comprising an acid. See, e.g., claim 1. Gerber discloses that the phenolic resin may also **be formulated with** an organic functional silane coupling agent, see col. 18, lines 44-55, and a solvent. See col. 11, line 57 to col. 12, line 2. Thus, Gerber fails to disclose a composition as recited in pending claims 1, 16, and 21. Indeed, not only does Gerber fail to disclose the subject matter of these claims, the Gerber composition could not be effectively employed as a composition wherein an alkoxysilane is provided in one component and a phenolic resin, an acid, and solvent are providing in another component because Gerber makes clear that the acid disclosed therein is used as a catalyst, *i.e.*, a hardening agent. See, e.g., col. 7, lines 18-40. As a result, Gerber neither teaches nor suggests each and every limitation of claims 1, 16, and 21 as amended. Accordingly, the rejection of these claims under 35 U.S.C. § 102 should be withdrawn.

Second, independent claim 22 has been amended herein to specify an invention directed to a solvent-based coating composition comprising a phenolic resin, an alkoxysilane, an acid, and at least one organic solvent, wherein the amounts of these constituents present in the coating composition are selected to result in an applied coating film with a dry film thickness of no more than about 0.1 mils. Support for this amendment may be found at page 6 of the application. Gerber fails to disclose or suggest such a composition. Accordingly, the rejection of this claim under 35 U.S.C. § 102 should be withdrawn as well.

The Examiner states that the recited film thickness is an inherent property of Gerber. See Office Action at 3. Yet, the Examiner does not, and cannot, provide the requisite basis in fact and/or technical reasoning to support such a conclusion. See MPEP § 2131.01; *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990). Indeed, the fact that a certain result may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)

(reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art). Here, the Examiner fails to provide any basis for concluding that the amount of phenolic resin, acid, alkoxysilane, and solvent employed in the Gerber composition would result in an applied coating film with a dry film thickness of no more than about 0.1 mils, as recited in claim 22 as amended. Accordingly, the rejection of claim 22 under 35 U.S.C. § 102 should be withdrawn.

Because claims 3-5, 9-15, 18-20, 24-26, 30, and 54-62 all depend from claim 1, 16, 21, or 22, Gerber fails to disclose each and every limitation of these claims for the same reasons discussed above with respect to claims 1, 16, 21, and 22. Therefore, the rejection of these claims under 35 U.S.C. § 102 should be withdrawn as well.

3. 35 U.S.C. § 103 In View of Gerber Alone or In Combination With Kojo

In the Office Action, the Examiner rejects claims 1-5, 9-26, 30, 31 and 42-53 as obvious over Gerber alone, or in view of Kojo (US 4,702,962). See Office Action at 4. Applicants submit the following response.

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. *In re Piasecki*, 745 F.2d 1468, 1471, 223 USPQ 785, 787 (Fed. Cir. 1984). To establish such a *prima facie* case, several requirements must be met. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to combine references. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Second, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1209, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991). Third, the prior art reference or combination of references must teach or suggest all the limitations of the claims. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

a. Gerber Alone

Applicants respectfully contend that the Examiner has failed to establish a *prima facie* case of obviousness with respect to pending claims 1-5, 9-26, and 30-31 as amended or new claims 54-61 in view of Gerber alone. First, as mentioned earlier, the Examiner has not shown that Gerber alone teaches or suggests a coating composition as recited in independent claims 1, 16, and 21 as amended. See p. 10, *supra*. Second, the Examiner

has not identified any suggestion in the prior art that would have motivated the skilled artisan to modify Gerber to result in the coating composition of these claims. Third, the teachings of Gerber establish that the modification thereof proposed by the Examiner would not have had a reasonable expectation of success. Indeed, as mentioned above, the Gerber composition could not be effectively employed as a composition wherein an alkoxysilane is provided in one component and a phenolic resin, an acid, and solvent are providing in another component because Gerber makes clear that the acid disclosed therein is used as a catalyst, *i.e.*, a hardening agent, unlike the present invention wherein an acid is present as a separate component in a coating composition. See, page 10, *supra*. As a result, the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 1, 16 and 21 as amended in view of Gerber alone.

Second, Applicants respectfully contend that the Examiner has not shown that Gerber alone teaches or suggests a coating composition as recited in independent claims 22 and 31 as amended herein. Indeed, as mentioned above, Gerber fails to disclose or suggest a coating composition comprising a phenolic resin, an alkoxysilane, an acid, and at least one organic solvent, wherein the amounts of these constituents present in the coating composition are selected to result in an applied coating film with a dry film thickness of no more than about 0.1 mils. Moreover, the Examiner has not identified any suggestion in the prior art that would have motivated the skilled artisan to modify Gerber to result in such a coating composition. As a result, the Examiner has failed to establish a *prima facie* case of obviousness with respect to independent claims 22 and 31 as amended in view of Gerber alone.

Because claims 3-5, 9-15, 18-20, 24-26, 30, and 54-62 all depend from claim 1, 16, 21, 22, the rejection of these claims under 35 U.S.C. § 103 in view of Gerber alone should be withdrawn as well.

b. Gerber In View of Kojo

Applicants respectfully contend that the Examiner has failed to establish a *prima facie* case of obviousness with respect to pending claims 1-5, 9-26, and 30-31 as amended or new claims 54-61 in view of Gerber in combination with Kojo. First, the Examiner has not shown that Kojo in combination with Gerber teaches or suggests all of the limitations of claims 1, 16, and/or 21 as amended. In particular, the combination proposed by the Examiner does not disclose or suggest any coating composition comprising a mixture of (i) a first component comprising a phenolic resin, an acid, and a solvent, and (ii) a second component comprising an alkoxysilane, wherein the first component and the second

component are mixed immediately prior to application of the composition to a substrate.

Second, the Examiner has not identified any suggestion in Gerber or Kojo that would have motivated the skilled artisan to modify Gerber and/or Kojo to result in the coating composition of these claims. Indeed, like Gerber, Kojo discloses the use of an acid as a catalyst in the reaction of a phenol compound and an epoxy compound, as the Examiner recognizes. See Office Action at 4. This is unlike the present invention wherein an acid is present as a separate component in a coating composition. Thus, there is no suggestion in Kojo to provide a composition wherein an alkoxysilane is provided in one component and a phenolic resin, an acid, and solvent are providing in another component, wherein the components are combined immediately prior to application of the composition to a substrate. As a result, the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 1, 16 and 21 as amended in view of Gerber in combination with Kojo.

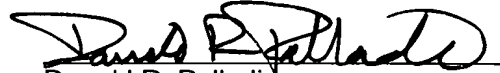
Second, Applicants respectfully contend that the Examiner has not shown that Gerber in combination with Kojo teaches or suggests a coating composition as recited in independent claims 22 and 31 as amended herein. Indeed, like Gerber, Kojo fails to disclose or suggest a coating composition comprising a phenolic resin, an alkoxysilane, an acid, and at least one organic solvent, wherein the amounts of these constituents present in the coating composition are selected to result in an applied coating film with a dry film thickness of no more than about 0.1 mils. Indeed, in the examples illustrated in Kojo, the coating described therein had a dry film thickness of 60-75 microns (2.4 to 3.0 mils). Moreover, the Examiner has not identified any suggestion in the prior art that would have motivated the skilled artisan to modify Kojo to result in such a coating composition. As a result, the Examiner has failed to establish a *prima facie* case of obviousness with respect to independent claims 22 and 31 as amended in view of Gerber in combination with Kojo.

Because claims 3-5, 9-15, 18-20, 24-26, 30, and 54-62 all depend from claim 1, 16, 21, 22, the rejection of these claims under 35 U.S.C. § 103 in view of Gerber in combination with Kojo should be withdrawn as well.

CONCLUSION

Applicants respectfully request entry of the foregoing amendment and allowance of the application at an early date.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Donald R. Palladino", written over a horizontal line.

Donald R. Palladino
Attorney for Applicants
Registration No.: 46,976

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
Telephone: (412) 434-3186
Facsimile: (412) 434-4292

Pittsburgh, Pennsylvania
December 23, 2003